

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs 0041-0043 in the Specification with the following paragraphs:

[0041] The compositions and methods of the present invention may comprise or use calcium in either chelated or non-chelated form. Chelation of calcium may affect its bioavailability. This mineral is required for proper functioning of numerous intracellular and extracellular processes including, for example, muscle contraction, nerve conduction, blood coagulation, and of particular interest in the context of pregnancy and lactation, hormone release. In addition, the calcium ion plays a unique role in intracellular signaling and is involved in the regulation of many enzymes. THE MERCK MANUAL OF DIAGNOSIS AND THERAPY 139 (Mark H. Beers, M.D. & Robert Berkow, M.D. eds., 17th ed. 1999). Calcium is available in forms known to those of skill in the art, including the form of calcium carbonate, the active ingredient in TUMS® (GlaxoSmithKline, Research Triangle Park, NC). The novel compositions and methods of the present invention may comprise or use calcium, specifically in amounts ranging from about 90 mg to about 110 mg and, in a specific embodiment, around 100 mg. Further, the novel compositions and methods of the present invention may comprise or use calcium in amounts less than about 160 mg. In addition, the novel compositions and methods of the present invention may comprise or use calcium in amounts ranging from about 0.001 mg to about 160 mg. In addition, the novel compositions and methods of the present invention may comprise or use calcium in amounts of 0 mg, 1 mg, 2 mg, 3 mg, 4 mg, 5 mg, 6 mg, 7 mg, 8 mg, 9 mg, 10 mg, 11 mg, 12 mg, 13 mg, 14 mg, 15 mg, 16 mg, 17 mg, 18 mg, 19 mg, 20 mg, 21 mg, 22 mg, 23 mg, 24 mg, 25 mg, 26 mg, 27 mg, 28 mg, 29 mg, 30 mg, 31 mg, 32 mg, 33 mg, 34 mg, 35 mg, 36 mg, 37 mg, 38 mg, 39 mg, 40 mg, 41 mg, 42 mg, 43 mg, 44 mg, 45 mg, 46 mg, 47 mg, 48 mg, 49 mg, 50 mg, 51 mg, 52 mg, 53 mg, 54 mg, 55 mg, 56 mg, 57 mg, 58 mg, 59 mg, 60 mg, 61 mg, 62 mg, 63 mg, 64 mg, 65 mg, 66 mg, 67 mg, 68 mg, 69 mg, 70 mg, 71 mg, 72 mg, 73 mg, 74 mg, 75 mg, 76 mg, 77 mg, 78 mg, 79 mg, 80 mg, 81 mg, 82 mg, 83 mg, 84 mg, 85 mg, 86 mg, 87 mg, 88 mg, 89 mg, 90 mg, 91 mg, 92 mg, 93 mg, 94 mg, 95 mg, 96 mg, 97 mg, 98 mg, 99 mg, 100 mg, 101 mg, 102 mg, 103 mg, 104 mg, 105 mg, 106 mg, 107 mg, 108 mg, 109 mg, 110 mg, 111 mg, 112 mg, 113 mg, 114 mg, 115 mg, 116 mg, 117 mg, 118 mg, 119 mg, 120 mg, 121 mg, 122 mg, 123 mg, 124 mg, 125 mg, 126 mg, 127 mg, 128 mg, 129 mg, 130 mg, 131 mg, 132 mg, 133 mg, 134 mg, 135 mg, 136 mg, 137 mg, 138 mg, 139 mg, 140 mg, 141

mg, 142 mg, 143 mg, 144 mg, 145 mg, 146 mg, 147 mg, 148 mg, 149 mg, 150 mg, 151 mg, 152 mg, 153 mg, 154 mg, 155 mg, 156 mg, 157 mg, 158 mg, 159 mg, or 160 mg.

[0042] The compositions and methods of the present invention may comprise or use iron in either chelated or non-chelated form. Chelation of iron may affect its bioavailability. A primary function of iron is to carry oxygen to bodily tissues via the hemoglobin part of red blood cells. Supplemental intake of iron is critical to preventing anemia, a disorder associated with a variety of physiological states including, for example, pregnancy. Bothwell, 72(Supp.) AM. J. CLIN. NUTR. 257S-64S (2000). Severe anemia may have adverse effects upon a mother and a fetus. Specifically, significant depression of hemoglobin has been associated with poor pregnancy outcome. Black, 85(Supp. 2) BRIT. J. NUTR. S193-97 (2001); Sifakis & Pharmakides, 900 ANN. N.Y. ACAD. SCI. 125-36 (2000). One form of iron known in the art is ferrous fumarate (Jost Chemical, St. Louis, MO). The novel compositions and methods of the present invention may comprise or use iron, specifically in amounts ranging from about 58.5 mg to about 71.5 mg and, in a specific embodiment, around 65 mg. In addition, the novel compositions and methods of the present invention may comprise or use iron in amounts more than about 20 mg. In addition, the novel compositions and methods of the present invention may comprise or use iron in amounts of 0 mg, 1 mg, 2 mg, 3 mg, 4 mg, 5 mg, 6 mg, 7 mg, 8 mg, 9 mg, 10 mg, 11 mg, 12 mg, 13 mg, 14 mg, 15 mg, 16 mg, 17 mg, 18 mg, 19 mg, 20 mg, 21 mg, 22 mg, 23 mg, 24 mg, 25 mg, 26 mg, 27 mg, 28 mg, 29 mg, 30 mg, 31 mg, 32 mg, 33 mg, 34 mg, 35 mg, 36 mg, 37 mg, 38 mg, 39 mg, 40 mg, 41 mg, 42 mg, 43 mg, 44 mg, 45 mg, 46 mg, 47 mg, 48 mg, 49 mg, 50 mg, 51 mg, 52 mg, 53 mg, 54 mg, 55 mg, 56 mg, 57 mg, 58 mg, 59 mg, 60 mg, 61 mg, 62 mg, 63 mg, 64 mg, 65 mg, 66 mg, 67 mg, 68 mg, 69 mg, 70 mg, 71 mg, 72 mg, 73 mg, 74 mg, 75 mg, 76 mg, 77 mg, 78 mg, 79 mg, or 80 mg.

[0043] The compositions and methods of the present invention may comprise or use magnesium in either chelated or non-chelated form. Chelation of magnesium may affect its bioavailability. Magnesium is important for over 300 different enzyme reactions. A primary function of magnesium is to bind to phosphate groups in adenosine triphosphate (ATP), thereby forming a complex that assists in the transfer of ATP phosphate. Magnesium also functions within cells as an allosteric activator of enzyme activity and for membrane stabilization. Magnesium also plays roles in nucleic acid synthesis, transcription of DNA and RNA, amino acid activation, and protein synthesis. JAMES L.L. GROFF ET AL., ADVANCED NUTRITION AND HUMAN METABOLISM 341 (2d ed. 1996).

Please replace paragraphs 0046-0047 in the Specification with the following paragraphs:

[0046] The compositions and methods of the present invention may comprise or use zinc in either chelated or non-chelated form. Chelation of zinc may affect its bioavailability. Zinc plays a role in numerous metabolic activities such as nucleic acid production, protein synthesis, and development of the immune system. There are more than 200 zinc metalloenzymes including aldolase, alcohol dehydrogenase, RNA polymerase, and protein kinase C. Zima et al., 17 BLOOD PURIF. 182-86 (1999). Zinc stabilizes RNA and DNA structures, forms zinc fingers in nuclear receptors, and is a component of chromatin proteins involved in transcription and replication. Deficiencies of zinc during pregnancy have been shown to contribute to severe fetal abnormalities. Srinivas et al., 68(6) INDIAN J. PEDIATR. 519-22 (2001); Yang et al., 13(4) BIOMED. ENVIRON. SCI. 280-86 (2000); King, 71(Supp.) AM. J. CLIN. NUTR. 1334S-43S (2000). Zinc is available in many forms, such as zinc oxide (Reade Advanced Materials, Providence, RI) and zinc sulfate (United States Biological, Swampscott, MA). The novel compositions and methods of the present invention may comprise or use zinc, specifically in amounts ranging from about 22.5 mg to about 27.5 mg and, in a specific embodiment, around 25 mg.

[0047] The compositions and methods of the present invention may comprise or use copper in either chelated or non-chelated form. Chelation of copper may affect its bioavailability. Copper is an important component of the process of gene expression. Deficiencies of copper may lead to anemia, neutropenia, and bone abnormalities in pregnant and lactating women. In addition, a fetus must accumulate copper at a rate of $50 \mu\text{g} \times \text{kg}^{-1} \times \text{d}^{-1}$ over the latter half of pregnancy; any deficiency in accumulation may lead to low birth weight and protein-energy malnutrition. Uauy et al., 67(Supp.) AMER. J. CLIN. NUTR. 952S-59S (1998). Many forms of copper are known to those skilled in the art, including copper oxide (Reade Advanced Materials, Providence, RI). The novel compositions and methods of the present invention may comprise or use copper, specifically in amounts ranging from about 1.8 mg to about 2.2 mg and, in a specific embodiment, around 2.0 mg. The novel compositions and methods of the present invention may comprise or use copper, specifically in amounts of 0 mg, 0.1 mg, 0.2 mg, 0.3 mg, 0.4 mg, 0.5 mg, 0.6 mg, 0.7 mg, 0.8 mg, 0.9 mg, 1.0 mg, 1.1 mg, 1.2 mg, 1.3 mg, 1.4 mg, 1.5 mg, 1.6 mg, 1.7 mg, 1.8 mg, 1.9 mg, 2.0 mg, 2.1 mg, 2.2 mg, 2.3 mg, 2.4 mg, 2.5 mg, 2.6 mg, 2.7 mg, 2.8 mg, 2.9 mg, or 3.0 mg.